

Agilent Ref: 10010016-1
United States Application Serial No. 09/772,723

REMARKS

Formal Matters

Claims 1-44 are pending and claims 15-44 are withdrawn from consideration.

Claims 1-14 were examined and rejected.

Applicants respectfully request reconsideration of the application in view of the remarks made herein.

Rejections under 35 U.S.C. § 103

Claims 1-14 are rejected under 35 U.S.C. § 103(a) as being obvious over Hunkapiller in view of Zelcny, Brown, Anderson, Shakib and Balaban.

As summarized in the Applicant's previous response, Claims 1 to 14 are directed to methods of fabricating an array of biopolymers by obtaining biopolymers from individual vessels, e.g., wells of a microtitre plate, and depositing the obtained biopolymers on different regions of a substrate. A feature of the subject invention, as described in the specification beginning at page 10 in connection with Figure 4, is that a map of the identity of the individually identified vessels per se, and not just the biopolymers obtained therefrom, is obtained and printed onto the array substrate, in addition to the biopolymers.

Specifically, Claims 1 and 8 both include the limitation of:

"saving in a memory a map of the identity of the vessels to the corresponding regions of the substrate onto which the biopolymers from respective vessels are deposited, in association with a map identifier..."

Since the words of a claim must be read in view of the teaching of the specification, the phrase "the identity of the vessels" means not just the identity of the biopolymer obtained from the vessel, but the identity of the actual vessel holding the biopolymer. The specification provides an illustrative example at page 11, line 6 in the form of Table 1, where each feature is matched with a vessel identifier, which vessel identifier is not just the identity of the biopolymer in the vessel, but the identity of the vessel, e.g., well of a tray, per se. In an

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alternative representative embodiment described at the bottom of page 11, the identity of the vessel may be a mark, which where the map associated with the array is a map of the marks and therefore a map of the identity of the vessels per se, and not just a map of the identity of the biopolymers obtained from the vessels.

The invention allows one to obtain biopolymers from a plurality of different wells, such as the wells of a microtitre plate, deposit the biopolymers onto the substrate surface in a manner that does not have the same spatial layout as the microtitre plate source, and still be able to know the specific source well of the microtitre plate for each feature of the manufactured array.

Consistent with the above, a feature of all of the above claims is that a map of the identity of the individually identified vessels used as sources for the biopolymers of the features of the array be applied to the substrate or housing associated therewith. In other words, **a map of the source vessels themselves, and not just the identity of the biopolymers obtained from the source vessels, is associated with the manufactured array.**

In maintaining the rejection, the Examiner has asserted that element (c), reproduced above, can be read more broadly than as defined above, such that it does not require a map of the source vessels per se, but just the identity of the biopolymer present in the source vessel. The Examiner equates the situation to that of strawberry jam, asserting that "strawberry jam alone sufficiently represents the identification of a vessel or jar of strawberry jam."

While it is understood that the Examiner must read the claim language as broadly as permissible, it is respectfully submitted that the Examiner is reading the present language of the claim more broadly than can be supported by the claim language.

Specifically, element (c) requires:

" saving in a memory a map of the identity of the vessels"

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The identity of the vessels is the specifics of the actual vessel itself, not just the contents thereof. Furthermore, contrary to the Examiner's analogy, knowing a composition does not tell one anything about the identity of the source vessel of the composition. If one has strawberry jam, one does not know for sure whether it came from a vessel or jar (much less the specific jar or vessel from which it was obtained), or was prepared fresh and therefore never present in a jar or vessel.

It is respectfully submitted that the claim language clearly limits the methods to ones that include a step of saving a map of the source vessels per se in a memory, not just the biopolymers that might have been obtained from the source vessels.

Turning now to the rejection, it is respectfully submitted that there is no teaching or suggestion in the combination of rejections to generate a map of the source vessels per se and associate it with the manufactured array. In reading the office action, Zeleny appears to be the reference relied upon to provide the teaching of this element of the claimed methods. However, Zeleny is concerned with recording an identifier on the array which can be used to retrieve the appropriate scanning protocol to use in reading the array. There is no teaching or suggestion in Zeleny, or any of the other references included in the rejection, to specifically record a map of the identity of the source vessels of each biopolymer that is present in each feature of the array.

Because the cited combination of references fails to teach the element of the claimed invention in which a map of the identity of the source vessels per se is associated with the manufactured array, it is respectfully submitted that Claims 1-14 are not obvious under 35 U.S.C. § 103(a) over Hunkapiller in view of Zeleny, Brown, Anderson, Shakib and Balaban and that this rejection may therefore be withdrawn.

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CONCLUSION

Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078.

Respectfully submitted,
BOZICEVIC, FIELD & FRANCIS LLP

Date: 8-25-04

By: 

Bret Field
Registration No. 37,620

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